

ATTTATTTATTTAATCATCTCATATGTGTCTATGTGTTCTGTTTAACTCAGATCCTTCCACACA
 AAGAAAACATACTGCAGAAACAATCGTGATTTCTGTAAGTCAACGGCAAACACCACCCCGTCTT
 AACGGCCAGCAGGAAAAAATGAAGCATATTATCAATTCGTATGAACACACCAATGACACCGCAAG
 AAATAACTCCGATTGTCCTGATGTAGTTTTGCCAGAAGAGATATTTTTCACAATCTCTGTCATTG
 GCATATTGGAGAACTTGATTGTCCTCCTGGCTGTGATCAAAAATAAAAATCTCCAGTCCCCCATG
 TATTTTTTTCATCTGCAGTTTGGCCATTTCTGACATGTTGGGCAGTCTGTATAAGATCTTGAAAA
 CATCCTGATCATGTTCAGAAACATGGGTTATCTTAAGCCTCGTGGCAGTTTTGAAAGCACAGCAG
 ATGACATCATTGACTGCATGTTTCATCCTCTCTTTGCTGGGCTCTATCTTCAGCCTGTCTGTCATT
 GCAGCTGACCGTTACATCACCATCTTCCATGCCCTGCAATACCATAGCATTGTGACCATGCGCCG
 CACCATCATCACCTAACAATTATCTGGATGTTCTGCACAGGGAGCGGCATCACCATGGTGATCT
 TCTCCCACCACATCCCCACAGTGCTCACCTTCACATCGCTGTTCCCTTTGATGCTGGTTTTTATC
 CTGTGTCTCTACATCCACATGTTCTTACTTGCCCGCTCCCATGCTAGGAAGATCTCTACCCTTCC
 TAGAACCAACATGAAGGTGCCATGACACTAACCATCCTTCTTGAGTCTTCATCTTCTGTTGGG
 CCCCCTTTGTGCTCCATGTTCTCTTAATGACCTTCTGCCCAAATAACCCTTACTGTGTTTGCTAC
 ATGTCTCTCTTCCAGGTCAATGGCATGTTGATCATGTGCAATGCAGTTATTGACCCCTTTATATA
 TGCCTTTTCGGAGCCCAGAGCTCAGAGATGCATTCAAAGGATGCTCTTCTGCAACCGGTATTAGT
 AGAATTTTTGATCCCTGCTTTGAGTGTTGTAAAGGGACCAATAACACATCAGTCTGACA (SEQ
 ID NO:1)

MKHIINSYEHTNDTARNNSDCPDVVLPEEIFFTISVIGILENLIVLLAVIKNKNLQSPMYFFICS
 LAISDMLGSLYKILENILIMFRNMGYLKPRGSFESTADDIIDCMFILSLLGSIFSLSVIAADRYI
 TIFHALQYHSIVTMRRTIITLTIWMFCTGSGITMVIFSHIPTVLTFTSLFPLMLVFILCLYIH
 MFLARSHARKISTLPRTNMKGAMTLTILLGVFIFCWAPFVLHVLLMTFCPNNPYCVCYMSLFQV
 NGMLIMCNAVIDPFIYAFRSPELRDAFKRMLFCNRY (SEQ ID NO:2)

FIGURE 1

underlined = deleted in targeting construct

Bold = sequence flanking Neo insert in targeting construct

ATTTATTTATTTAATCATCTCATATGTGTCTATGTGTTCTGTTTAACTCAGATCCTTCC
 ACACAAAGAAAACATACTGCAGAAACAATCGTGATTTCTGTAAGTCAACGGCAAACACCA
 CCCCCGTCTTAACGGCCAGCAGGAAAAAATGAAGCATATTATCAATTCGTATGAACACAC
 CAATGACACCGCAAGAAATAACTCCGATTGTCCTGATGTAGTTTGGCAGAAGAGATATT
 TTTACAAATCTCTGTCAATTGGCATATTGGAGAACTTGATTGTCCTCCTGGCTGTGATCAA
 AAATAAAAATCTCCAGTCCCCCATGTATTTTTTCATCTGCAGTTTGGCCATTTCTGACAT
 GTTGGGCAGTCTGTATAAGATCTTGGAAAACATCCTGATCATGTTCAGAAACATGGGTTA
 TCTTAAGCCTCGTGGCAGTTTGAAGCACAGCAGATGACATCATTGACTGCATGTTTCAT
 CCTCTCTTTGCTGGGCTCTATCTTCAGCCTGTCTGTCATTGCAGCTGACCGTTACATCAC
 CATCTTCCATGCCCTGCAATACCATAGCATTGTGACCATGCGCCGCACCATCATCACCTT
 AACAATTATCTGGATGTTCTGCACAGGGAGCGGCATCACCATGGTGATCTTCTCCACCA
 CATCCCCACAGTGCTCACCTTCACATCGCTGTTCCTTTGATGCTGGTTTTTATCCTGTG
 TCTCTACATCCACATGTTCTTACTTGCCCGCTCCCATGCTAGGAAGATCTCTACCTTCC
 TAGAACCAACATGAAGGGTGCCATGACACTAACCATCCTTCTTGAGTCTTCATCTTCTG
 TTGGGCCCCCTTTGTGCTCCATGTTCTCTTAATGACCTTCTGCCCCAAATAACCTTACTG
 TGTTTGCTACATGTCTCTCTTCCAGGTCAATGGCATGTTGATCATGTGCAATGCAGTTAT
 TGACCCCTTTATATATGCCTTTTCGGAGCCCAGAGCTCAGAGATGCATTCAAAGGATGCT
 CTTCTGCAACCGGTATTAGTAGAATTTTGTATCCCTGCTTTGAGTGTGTAAAGGGACCA
 AATAACACATCAGTCTGACA (SEQ ID NO:1)

FIGURE 2A

Gene Sequence Structure *

Size of full-length cDNA: 1100 bp

371 bp

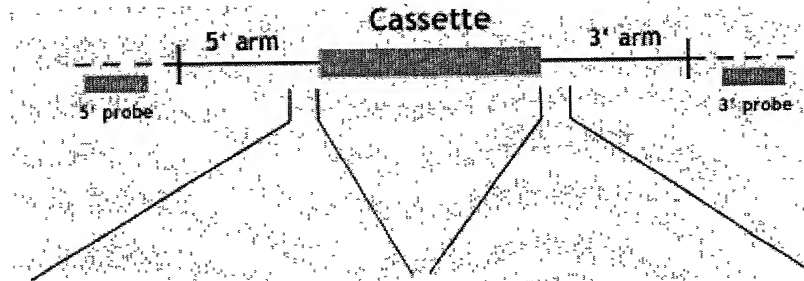
Sequence Deleted

796 bp

Targeting Vector* (genomic sequence)

Arm Length:
5': 1.5 kb
3': 3 kb

LacZ-Neo Cassette



5' >ATGAACACACCAATGACACCG
CAAGAAATAACTCCGATTGTCCTG
ATGTAGTTTTGCCAGAAGAGATAT
TTTTCAATCTCTGTCATTGGCA
TATTGGAGAACTTGATTGTCCTCC
TGGCTGTGATCAAAAATAAAAATC
TCCAGTCCCCCATGTATTTTTTCA
TCTGCAGTTTGGCCATTCTGACA
TGTTGGGCAGT<3' (SEQ ID
NO: 3)

5' >GGTGCCATGACACTAACCATC
CTTCTTGGAGTCTTCATCTTCTGT
TGGGCCCCCTTTGTGCTCCATGTT
CTCTTAATGACTTTCTGCCAAAT
AACCCTTACTGTGTTTGCTACATG
TCTCTCTCCAGGTCAATGGCATG
TTGATCATGTGCAATGCAGTTATT
GACCCCTTTATATATGCCTTTTCGG
AGCCCAGAGCT<3' (SEQ ID
NO: 4)

Targeting Vector
Endogenous Locus

* Not drawn to scale

FIGURE 2B

Metrazol Dose to Reach Seizure Stages

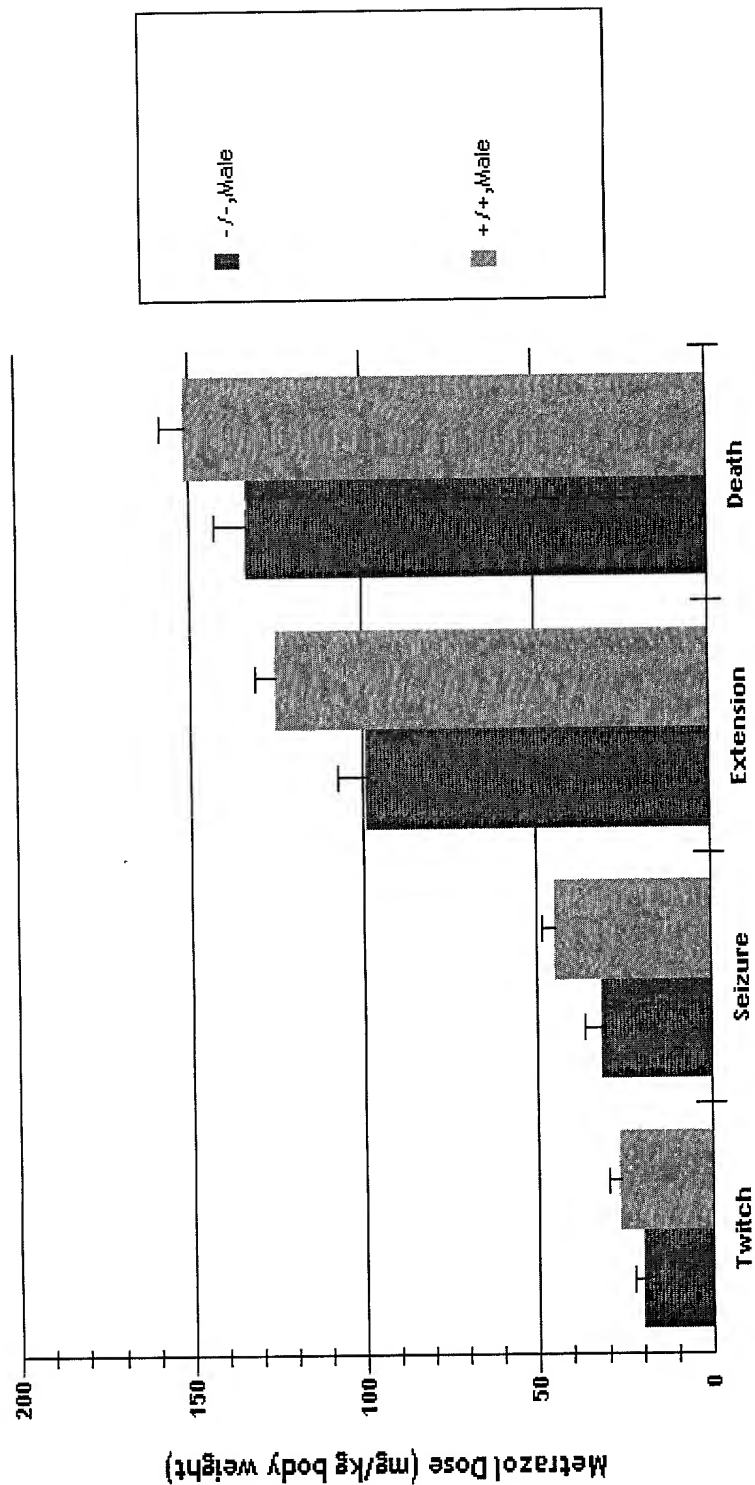


FIGURE 3

Open Field Summary Data - Distance Travelled

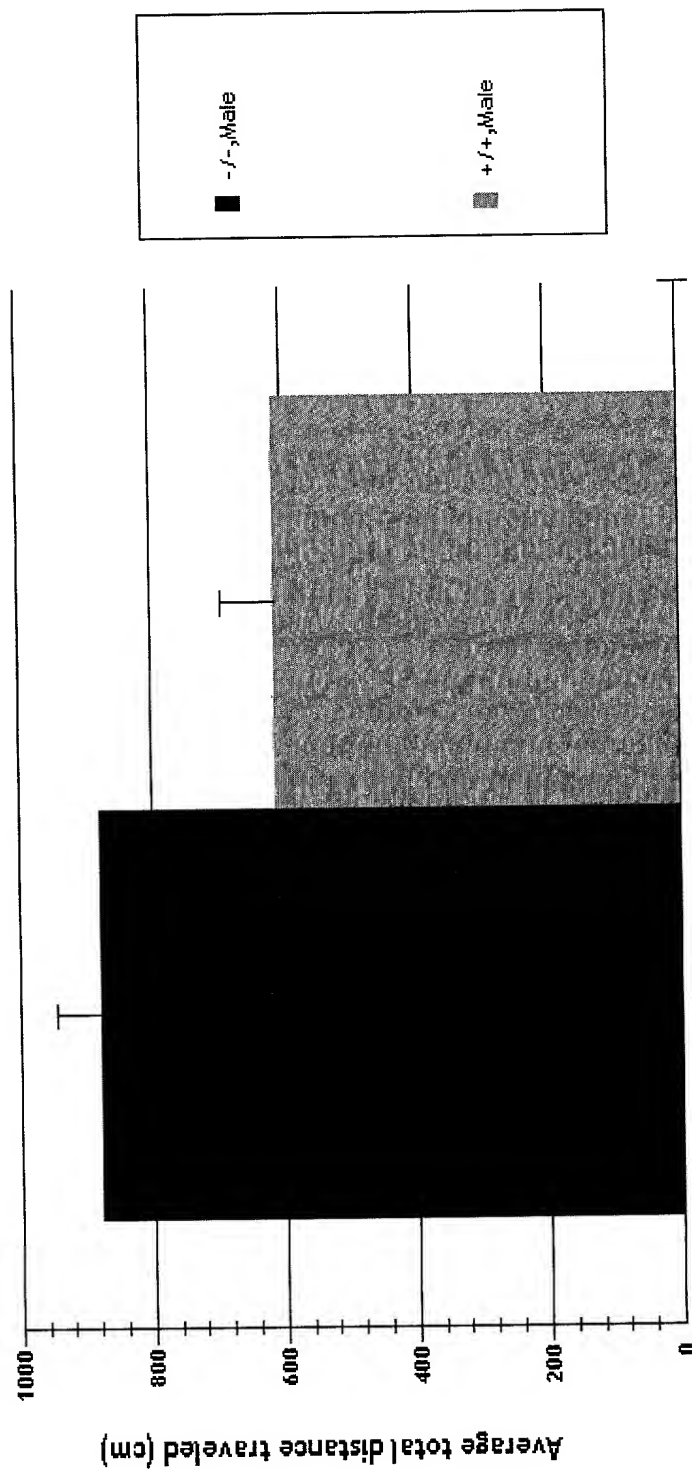


FIGURE 4

6/6

Tail Suspension - Total Time Immobile

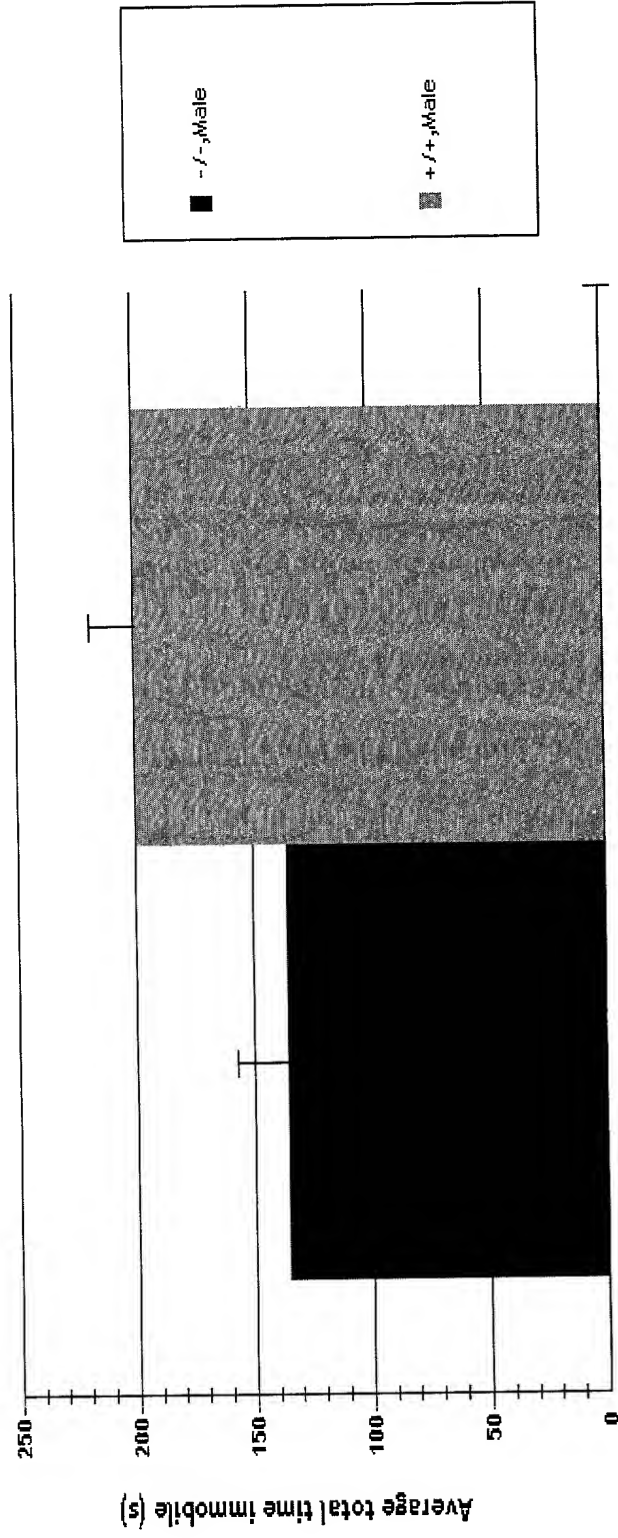


FIGURE 5